

IN THE CLAIMS

Claim 1 (currently amended): An apparatus for regulating voltage for at least one differential transistor pair, comprising:

a voltage follower buffer having a first voltage-temperature response;

a differential amplifier having two input loci and an output locus; a first input locus of said two input loci receiving a reference voltage;

a temperature responsive unit coupled between said output locus and ground;
and

a feedback line coupled between said temperature responsive unit and a second input locus of said two input loci;

said temperature responsive unit having a second voltage-temperature response ~~similar to~~ modeled on said first voltage-temperature response.

Claim 2 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 1 wherein said temperature responsive unit comprises at least two resistive devices and a temperature sensitive diode device coupled in series.

Claim 3 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 2 wherein one resistive device of said at least two resistive devices is coupled with ground.

Claim 4 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 2 wherein said temperature sensitive diode device is coupled with ground.

Claim 5 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 2 wherein said temperature sensitive diode device is coupled with said output locus.

Claim 6 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 2 wherein said feedback line is coupled with said temperature responsive unit at a connection locus; said connection locus being separated from ground by at least one resistive device of said at least two resistive devices and separated from said output locus by at least one resistive device of said at least two resistive devices.

Claim 7 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 6 wherein one resistive device of said at least two resistive devices is coupled with ground.

Claim 8 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 6 wherein said temperature sensitive diode device is coupled with ground.

Claim 9 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 6 wherein said temperature sensitive diode device is coupled with said output locus.

Claim 10 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 6 wherein said temperature sensitive diode device is a diode-coupled bipolar transistor.

Claim 11 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 10 wherein one resistive device of said at least two resistive devices is coupled with ground.

Claim 12 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 10 wherein said temperature sensitive diode device is coupled with ground.

Claim 13 (original): An apparatus for regulating voltage for at least one differential transistor pair powered at a supply voltage level and having a voltage follower buffer as recited in Claim 10 wherein said temperature sensitive diode device is coupled with said output locus.

Claim 14 (currently amended): An apparatus for providing a regulated signal to selected stages of a multi-stage differential signaling device, comprising: each respective said selected stage including a voltage follower section having a respective first voltage-temperature response;

a differential amplifier having two input loci and an output locus; a first input locus of said two input loci receiving a reference voltage;

a temperature responsive unit coupled between said output locus and ground;
and

a feedback line coupled between said temperature responsive unit and a second input locus of said two input loci;

said temperature responsive unit having a second voltage-temperature response ~~similar to~~ modeled on said respective first voltage-temperature responses of said selected stages.

Claim 15 (original): An apparatus for providing a regulated signal to selected stages of a multi-stage differential signaling device as recited in Claim 14 wherein said temperature responsive unit comprises at least two resistive devices and a temperature sensitive diode device coupled in series.

Claim 16 (original): An apparatus for providing a regulated signal to selected stages of a multi-stage differential signaling device as recited in Claim 15 wherein said feedback line is coupled with said temperature responsive unit at a connection locus; said connection locus being separated from ground by at least one resistive device of said at least two resistive devices and separated from said output locus by at least one resistive device of said at least two resistive devices.

Claim 17 (original): An apparatus for providing a regulated signal to selected stages of a multi-stage differential signaling device as recited in Claim 16 wherein one resistive device of said at least two resistive devices is coupled with ground.

Claim 18 (original): An apparatus for providing a regulated signal to selected stages of a multi-stage differential signaling device as recited in Claim 16 wherein said temperature sensitive diode device is coupled with ground.

Claim 19 (original): An apparatus for providing a regulated signal to selected stages of a multi-stage differential signaling device as recited in Claim 16 wherein said temperature sensitive diode device is coupled with said output locus.

Claim 20 (original): An apparatus for providing a regulated signal to selected stages of a multi-stage differential signaling device as recited in Claim 16 wherein said temperature sensitive diode device is a diode-coupled bipolar transistor.